

Curriculum Vitae
 Dr. Sharon Mosher
 Dean Emeritus & Professor Emeritus
 William Stamps Farish Chair Emeritus
 January 2026

Texas Registered Geologist #4662, retired

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 512-471-8018

Jackson School of Geosciences
 The University of Texas at Austin
 2305 Speedway, Stop C1160
 Austin, TX 78712-1692

FIELDS OF INTEREST: Structural geology, petrology; Tectonics

EDUCATION:

- B.S., 1973, University of Illinois at Urbana, Geology: thesis title: "Fracturing characteristics of two granites"; Advisors Drs. D. E. Anderson and R. L. Berger.
- M.Sc., 1975, Brown University, Geology: thesis title: "Pressure solution as a deformation mechanism in Pennsylvanian conglomerates from Rhode Island"; Advisor: Dr. Jan Tullis.
- Ph.D., 1978, University of Illinois at Urbana, Geology: dissertation title: "Pressure solution as a deformation mechanism for the Purgatory Conglomerate, Rhode Island"; Advisor: Dr. Dennis S. Wood.

SCHOLASTIC HONORS:

- Illinois Honorary Scholarship, 1969-1973
- Stephenson County General Scholarship, 1969-1973
- High honors and departmental distinction in the curriculum, University of Illinois, B.S., 1973

POST-GRADUATE EMPLOYMENT:

- Dean, Jackson School of Geosciences, 2009 – 2/2020
- Geology Foundation, Director, 2009 – 2/2020
- Chair, Department of Geological Sciences, 2007- 2009
- Professor, 1990-2021; William Stamps Farish Chair, 2001 – 2021; Wilton Scott Centennial Professorship, 1992-2001
- Associate Professor, 1984-1990
- Assistant Professor of Geology, 1978-1984
- Field Camp Director, 1985-96, 1979-1981
- All at the University of Texas at Austin; supervisor of 18 Ph.D., 35 MA/MS, 9 senior honors students and 3 postdoctoral scientists between 1978 and 2020

HONORS AND AWARDS:

External

- William B. Heroy Jr. Award for Distinguished Service to AGI, 2022
- Visionary Leadership Award, Council of Scientific Society Presidents, 2021
- Marcus Milling Legendary Geoscientist Award, American Geoscience Institute, 2020
- University of Illinois at Urbana, Liberal Arts & Sciences 2016 Alumni Achievement Award
- GeoScienceWorld, Invaluable Service Award, 2015, on 10th year anniversary
- President, American Geological Institute, elected, 2012-13
- Journal of Structural Geology, coauthor on Best Student Paper Award, 2012
- Exceptional Service Award, Council of Scientific Society Presidents, Fall 2011
- Exceptional Reviewer, *Lithosphere*, 2009

Honorary Lifetime Fellow, Geological Society of London, elected 2008
 Chair, Council of Scientific Society Presidents, elected, 2004
 Geological Society of America, Distinguished Service Award, 2003
 Alumni Achievement Award, University of Illinois Department of Geological Sciences, 2001
 President of the Geological Society of America, elected 2001
 Best Poster Award (with M. K. Johns), Geological Society of America Annual meeting, 1993
 Association of Women Geologists Outstanding Educator Award, 1990
 Fellow, Geological Society of America, 1989
 ARCO Outstanding Junior Faculty Award, 1981

UT

Hall of Distinction Award, Jackson School of GeoSciences 2023
 Dean Emeritus, Jackson School of Geosciences, 2021
 William Stamps Farish Chair and Professor Emeritus, 2021
 Joseph C. Walter Jr. Excellence Award, 2005
 College of Natural Sciences Deans Fellow, 1997
 Houston Oil and Minerals Faculty Excellence Award, 1982, 1991
 Knebel Distinguished Teaching Award, 1989
 William Stamps Farish Chair, 2001- 2020
 Wilton Scott Centennial Professorship, 1992-2001
 Getty Oil Company Centennial Teaching Fellowship, 1989-1992
 William T. Stokes Centennial Teaching Fellowship, 1983-84, 1986-1989
 Geology Foundation Centennial Teaching Fellowship, 1985-86

FIELD EXPERIENCE:

University of Texas field camp, New Mexico, Colorado, Arizona, Montana, Wyoming: 1978-1980; 1985-1996, Field Camp Director
 Field research in Llano uplift and west Texas Proterozoic, 1984-present
 Fieldwork on Macquarie Island, 1999-2002
 Field research in Northern Apennines, 1985-1990
 Fieldwork in Narragansett Basin, Rhode Island, 1979-1988
 Participated and led numerous field trips, US, Canada, Chile, Scotland, Australia, Antarctica and Europe
 Supervision of students in Arizona, California, Colorado, Massachusetts, New Mexico, Rhode Island, South Carolina, northern Scotland, Western Australia, Texas, Tierra del Fuego - Chile, Mexico, Macquarie Island and Northern Italy.
 Wyoming Summer Field Camp, University of Illinois, 1971 (student)
 British Isles Summer Field Camp, University of Illinois, 1975 (student); 1977 (teaching assistant)
 Thesis and dissertation field work, Rhode Island, 1974-1976

TEACHING, STUDENT SUPERVISION AND PUBLIC SERVICE ACTIVITES

COURSES TAUGHT:

Undergraduate:

Earth, Wind and Fire (Geo 302E), Physical Geology (Geo 401), Elementary Field Methods (Geo 420K), Structural Geology (Geo 428), Field Geology (Geo 660), Evolution of a Continent (Geo 377L), Tectonics I (Geo 371C); NeoGeo Fieldtrip leader (2007-2019)

Graduate:

Advanced Structural Geology (Geo 380C), Structural Petrology (Geo 381C), Regional Tectonics (Geo 391), Tectonics I (Geo 391), Theoretical Petrology (nonequilibrium thermodynamics) (Geo 391), Advanced Field Methods – Tectonics of the southwestern U.S. (Geo 391); Appalachian Tectonics (Geo 391), Petrologic Processes (Geo 391), Advanced Structural Petrology (Geo 391), Geophysics/Petrology/Structure of the Mantle (Geo 391); Western Australia University field exchange: Tectonic evolution of the southwestern U.S.; Regional Studies in Mineral Resources (Geo 381R) – field course to Western Australia; Supervised Teaching in Geological Sciences (Geo 298T); New Grad fieldtrip leader (2008-2019)

GRADUATE STUDENT SUPERVISION:

Ph.D. (completed; last known position):

- Betka, Paul; Structure of the Patagonian fold-thrust belt in the Magallanes Region of Chile, 53° - 55° S Lat., 2013 (Assistant Professor, Western Washington University)
- Levine, Jamie; In situ melt generation in anatectic migmatites and the role of strain in preferentially inducing melting, 2011 (Professor; Appalachian State)
- Singleton, John; Kinematic and geometric evolution of the Buckskin-Rawhide metamorphic core complex, west-central Arizona, 2012 (Associate Professor; Colorado State University)
- Barquero-Molina, Miriam; Kinematics of Bidirectional Extension and Coeval NW-Directed Contraction in Orthogneisses of the Biranup Complex, Albany Fraser Orogen, Southwestern Australia, 2009 (Associate Professor of Practice and Field Camp Director, University of Texas at Austin)
- Wertz, Karah; From seafloor spreading to uplift: The structural and geochemical evolution of Macquarie Island on the Australian-Pacific plate boundary, 2003 (Program development consultant, Adelaide, South Australia)
- Meckel, Tip A; Tectonics of the Hjort region of the Macquarie Ridge complex, southernmost Australian-Pacific plate boundary, southwest Pacific Ocean, 2003 (Senior Research Scientist, Bureau of Economic Geology, UT Austin)
- Grimes, Steve W.; The Grenville Orogeny in West Texas: Structure, kinematics, metamorphism, and depositional environment of the Carrizo Mountain Group, 1999 (Structural geologist, ALS Empirica)
- Reed, Rob M.; Emplacement and deformation of late syn-orogenic, Grenville-age granites in the Llano uplift, central Texas, 1999 (Research Scientist Associate V, Bureau of Economic Geology, UT Austin)
- Ge, Hongxing; Kinematics and dynamics of salt tectonics in the Paradox Basin, Utah and Colorado: field observations and scaled modeling, 1996 (President at GeoVision Consulting, LLC)
- Boettcher, Stefan S.; Crustal shortening, extension, and unroofing in Dome Rock Mountains, Arizona, 1996 (Exxon Production Research)
- Klepeis, Keith; Structural studies of deformation along convergent and transform plate boundaries in the Western Scotia Arc, 1993 (Professor, University of Vermont)
- Reese, Joe F.; Structural evolution and geochronology of the southeastern Llano Uplift, central Texas, 1995 (Professor, Edinboro University of Pennsylvania)
- Johns, Mary K.; Physical models and natural examples of fold interference, 1995 (Exxon Production Research)
- Hoak, Tom; Mesostructural, isotopic and geochemical constraints on the brittle tectonic evolution of the La Spezia region, Northwest Apennines, Italy, 1993, (Advanced Resources International)

- Carter, Karen; Construction and collapse of an orogen: Tectonic, strain, and fluid history of the Tuscan nappe, northern Apennines, Italy, 1990 (Los Alamos National Labs; now retired).
- Gray, Gary G.; Tectonic evolution of the western Paleozoic and Triassic/Western Jurassic plate boundary, Klamath Mountains, California, 1985 (Exxon Production Research; now retired; Adjunct Professor Rice University).
- Dreier, Ranaye B.; The Blackstone Series: Evidence of Avalonian and Alleghanian tectonics in southeastern New England, 1985 (Oak Ridge National Labs; adjunct professor, University of Tennessee; now retired)
- Burks, Rachel J.; Finite and incremental strains along the Beaverhead shear zone in Rhode Island, 1985 (Professor, Towson State University)

M.S. (completed; last known position)

- Pollard, Brittney M., Reactivation of fractures as discrete shear zones from fluid enhanced reaction softening, Harquahala metamorphic core complex, west-central Arizona, 2014
- Carter, Matt; Structural and petrographic analysis of the Cambrian units at Beavertail State Park, RI; 2008
- Tushman, Kira; Fracture tectonics, fracture porosity evolution and structural diagenesis, Cambrian Eriboll Sandstones, Northwestern Scotland; 2007 (BP)
- Davis, Ben; Complex structural and fluid flow evolution along the Grenville Front, Trans-Pecos Texas; 2007 (Concho)
- Collier, Sarah; Strain partitioning in the Moine Nappe: Northern Scotland; 2006
- Perry, Ethan; Field and petrographic analysis of mylonitic fabrics: implications for tectonic corrugation development, Tanque Verde Ridge, Arizona; 2005 (Marathon)
- Levine, Jamie; Structural analysis and detrital zircon provenance in the Llano uplift: implications for a southern collider, 2005 (Ph.D. student; UT Austin; Professor, Appalachian State)
- Svihla, Vanessa; Structural evolution of the east-central Big Maria Mountains, Maria fold and thrust belt, southeastern California, 2003 (Professor, University of New Mexico)
- Herrell, Kate; Pegmatite-containing shear zones: a mechanism for the formation of isolated feldspar augen megacrysts at Willimantic dome, central Connecticut, 2002 (Los Alamos National Labs)
- Hunt, Brian, B.; Mesoproterozoic structural evolution and lithologic investigation of the western Llano Uplift, Mason County, Central Texas, 2000 (Research Scientist Associate IV, Bureau of Economic Geology, UT Austin)
- Hoh, April; Structural investigation of the Valley Spring Gneiss, Devil's Waterhole, Llano Uplift, Texas, 2000 (TCEQ)
- Zumbro, Justin; A structural, petrologic, and geochemical investigation of the Valley Spring Gneiss of the southeastern Llano uplift, central Texas, 1999 (GEI Consultants)
- Massell, C.; Evolution of the Mesozoic-Cenozoic Macquarie Ridge Complex, Southwest Pacific, 1997 (Scripps)
- Carpenter, D.; Tectonic history of the metamorphic basement rocks of the Sierra del Carmen, Coahuila Mexico, 1996 (Chevron)
- Steinke, T. R.; Structure and kinematics of the Plomosa Pass area, northern Plomosa Mountains, Arizona, 1996 (Torco Innovations LLC)
- Marin, B.; Kinematic evolution of a ductile shear zone system, Granite Wash Mountains, west-central Arizona, 1993 (Terra Tek)
- Lin, Shing-Tzong; Experimental study of syndepositional and postdepositional gravity spreading of a brittle overburden and viscous substratum, 1992
- Gillis, G. M.; Polyphase deformation and metamorphism of the Middle Proterozoic Coal Creek Serpentinite, Gillespie County, Texas, 1989 (Saudi Aramco; AAPG past President)

- Mahler, J.; Late-stage Alleghanian wrenching of the western Narragansett Basin, Rhode Island; 1988 (Exxon)
- Hall, M.; Oblique slip faults in the northwestern Picuris Mountains, New Mexico: an expansion of the Embudo transform zone; 1988 (Radian)
- Bristol, D. A.; Structural evolution and metamorphism of the Mid-Proterozoic basement in the NW Van Horn Mountains Trans-Pecos, Texas, 1987 (Vice Chairman, Sentinel Trust)
- Evans, C.; Microstructures and sense of shear in the Brevard fault zone, Southern Appalachians; 1986 (Chevron)
- Adamek, S. H.; Earthquake studies in the Panama-Costa Rica Region, 1986 (Applied Geotechnology Inc.)
- Reck, B. H.; Timing of igneous activity, deformation, and metamorphism in southwestern Narragansett Basin, Rhode Island; 1985 (Dames and Moore consulting)
- Carter, K.; The structural and metamorphic evolution of the Click Formation, southeastern Llano Uplift, Texas; 1985 (Los Alamos National Lab).
- Henderson, M. C.; Alleghanian deformation in southern Narragansett Basin, Rhode Island and adjacent basement; 1984 (lawyer)
- Nelis, M.; Deformation and metamorphism of the Rough Ridge Formation, Llano County, Texas; 1984 (Core Labs)
- Cazier, E.; Late Paleozoic tectonic evolution of the Norfolk Basin, southeastern Massachusetts; 1984 (Murphy Oil)
- Berryhill, Alan; Structural analysis of progressive deformation within a complex strike slip fault system: southern Narragansett Basin, Rhode Island; 1984 (Currently President of Cross Point Environmental and Restoration Services)
- Pollman, K. S.; Brittle-ductile deformation of feldspars in the Garlock fault zone, southern California; 1983 (Bronco Environmental)
- Houston, B.; Proterozoic Uncompahgre formation: remnant of a Precambrian fold and thrust belt, southwestern Colorado; 1983 (Exxon)
- Farrens, Christine M.; Structural evolution of Aquidneck Island, south-central Narragansett Basin, Rhode Island; 1982 (Exxon)
- Thomas, Kimberly J.; Deformation and metamorphism in the central Narragansett Basin, Rhode Island; 1981 (Exxon)
- McIntyre, John F., III; Structural and metamorphic interrelationships in the Copper Hill antiform, Picuris, New Mexico; 1981 (Maxus)
- Burks, Rachel J.; Alleghenian deformation and metamorphism in south-western Narragansett Basin, Rhode Island; 1981 (Professor, Towson State University)

GRADUATE STUDENT COMMITTEE PARTICIPATION:

Ph.D. Committees, Chairman: 19; Permanent Member 16; Examining Member: 26.
MA Committees, Chairman: 34; Examining Member 48.

POSTDOCTORAL SCIENTIST SUPERVISION

- Daczko, Nathan; Structural evolution of Macquarie Island and the Macquarie Ridge Complex, 2001-2003 (Professor, Macquarie University)
- Massell, Chris; Investigation of transition from spreading to transform motion along Australia-Pacific plate boundary - Synthetic flow line and fracture zone strain analysis, 2001-2003 (Scripps)
- Roback, Robert; Continued investigation of the structural and geochronological history of the southeastern Llano Uplift, Texas, 1993-95 (Los Alamos National Lab)

UNDERGRADUATE STUDENT THESIS SUPERVISION

- Jonathan Skaggs; A structural and petrologic study of the Oxford Serpentinite, Llano County, Texas (Spring 2001)
- Andria Bilich; Analysis of the subduction to strike-slip transition zone of the San Cristobal Trench near the Solomon Islands (Spring 1999)
- Etxebarria, Maider; Relationship of granite intrusion to deformation in the Packsaddle schist near Sandy Mountain, Llano Uplift, TX (Spring, 1998)
- Chernoff, Carlotta; Structural and metamorphic evolution of the Piedra Lumbre area, Picuris Mountains (Spring, 1992)
- Teas, Phillip; Analysis of contact between post-tectonic granite and Packsaddle Schist, Llano Uplift (Spring, 1991)
- Smoot, Kelley; Deformation mechanisms in the Lewisian Gneiss and Cambro-Ordovician Sediments of Heilam, Scotland (Fall, 1982)
- Bebout, Gray; Structural and metamorphic evolution of the Precambrian Snowbird Group of the Smoky Mountains (Summer, 1981)
- Blass, Jeff; Precambrian Structure of the Sandy Creek - Rough Ridge area, Llano Uplift, Texas (Spring, 1980)
- Nast, Heidi J.; A study of vein growth and emplacement in five rocks from Lion's Head, Rhode Island (Fall, 1979)

EXTERNAL THESIS EXAMINOR

- Harb, Nicole; Fragmentation processes, depositional mechanisms and lithification of glassy fragmental rocks, Macquarie Island: Honours BSc. Macquarie University, Sydney; 2006.

DEPARTMENTAL ADMINISTRATION AND COMMITTEES:

- Structural geology faculty search committee chair, 2021
- Department Chair, June 2007-August 2009
- Acting Associate Dean for Academic Affairs and Student Dean for Jackson School of Geosciences, 2007-2009
- Undergraduate Advising Committee, *ex officio*, 2007 - 2020
- Strategic Planning Research and Graduate Education committee, Chair, 2006
- Admission Committee, 2005-2007
- Structure/Tectonics curricular group (now Education and Research Group), chair, 2005-2007
- Chair Subcommittee of Budget Council, Chair, 2005
- Associate Chair Search Committee, 2005
- Budget Council associate professor review subcommittee, Chair, 2005 & 2006
- Post tenure review committee, 2003, 2004 (Chair)
- Teaching Evaluation committee 2002-2003
- Upper division elective ad hoc committee 2002
- Teaching Policy ad hoc committee 2001
- 3 year P&T review committee, 1998, 2003
- Research Task Force, 1996
- UTIG/Department co-location evaluation committee, chair, 1996
- Hydrogeologic/Geosystems Engineering degree program committee, 1995
- Undergraduate Curriculum Review Committee; Chair, 1990-1995
- Staff Oversight Committee, 1989-2000
- Field Camp Director, 1985-96, 1979-1981
- Undergraduate Awards Committee, 1987-1996
- Search Committee, 1979-1981, 1984, 1988-1990; 1991-1994 Chair
- Faculty Review Committee, 1984-1988; 1993-1995, 2000-2001
- Spanish Committee, 1980-1983

Admission and Support Committee, 1979-1983; 1981-1983 Chair, 1990-1993

JACKSON SCHOOL ADMINISTRATION AND COMMITTEES

Dean, 2009 - 2020
 Executive Committee, Chair, 2007-2020
 Appointments Committee, 2006-2007
 Dean Search Committee, Chair, 2005-2006
 Strategic Planning Council, 2005-2007
 Appointments Committee, 2006-2007
 Jackson School Implementation committee, 2004-2005
 UT Explore planning committee, 2005-2006

UNIVERSITY COMMITTEES AND COUNCILS:

UTAMI – University of Texas at Austin Mexican Institute (Asociacion Civil A.C.), Board member, Secretary, 2017-2020
 Strategic IT Advisory Committee (SITAC), 2016-2019
 Vice President for Research Search Committee, 2015
 Inventor of the Year Review Panel, 2014, 2015
 Council on the Status of Women Faculty, 2012 - 2014
 Deans Council, 2009 – 2/2020
 Graduate Dean Search committee, 2012-2013
 Advisory Council of the Energy Institute, *ex officio* member, 2010-2020
 Executive Compliance Committee, 2010-2013
 The Institute for Computational Engineering and Sciences (ICES) Policy Board, 2009- 2020
 Committee on Undergraduate Program Review (CUDPR), 2007-2009
 Student Deans Committee, 2007-2009
 JSG New Building/Addition Architect/Builder Selection Committee, departmental representative;
 JSG New Building/Addition feasibility study committee, Chair, 2008
 Research Excellence Awards review committee, 2007.
 College of Natural Sciences Promotion and Tenure Committee, 1998-2000
 College of Natural Sciences Staff Excellence Awards Committee, 1988, 1994
 Doctoral Dissertation Award Review Committee, 1992
 Minority Liaison, 1990-1993
 Equal Opportunities Committee, College of Natural Sciences, 1988-1993.
 Course and Curriculum Committee, College of Natural Sciences, 1979-1981

PUBLIC SERVICE:

Worked with Texas Earth Science Alliance towards adoption of 4 years of science and a senior level capstone Earth and Space Science course by the State Board of Education, including testifying before board; helped Texas Education Agency with Earth Science TEKS for middle schools, 2005 to 2009
 Texas State Board of Education Earth Science Task Force, 2002-2005
 Organized Explore UT open house events for the Department of Geological Sciences 2000, 2001, 2002, 2003, 2004
 Lectured at Highland Park Elementary school 8 times on rocks and minerals, caves, plate tectonics, earthquakes, volcanoes;
 Led fieldtrips through Geology building for several elementary schools
 Ran geology field trips for a Girl Scouts troop twice; helped one troop earn a Geology badge
 Led geology portion of a field trip to Davis Mountains, Texas, for Kirby Hall middle school
 City Science Fair Judge, 1980-1981.

PROFESSIONAL ACTIVITIES

NATIONAL, STATE, AND OTHER PROFESSIONAL ACTIVITIES:

Southwest Research Institute, Advisory Trustee, 2010-2019
 Colorado School of Mines, Department of Geology and Geological Engineering, Visiting Committee, 2015
 Energy Asset Review Committee, Colorado State University, 2011
 GeoScienceWorld Board of Directors, Chair, 2004-2009
 NSF Tectonics Panel, 2006-2007
 NSF Selection Panel for Director of Earth Sciences Division, 2006
 NSF Committee of Visitors for Deep Earth Processes Section of EAR Division, GEO Directorate, Chair, 2005
 GEON Advisory Board, 2004-2007
 NSF Advisory Committee for Geosciences, 2003-2005
 NSF Cyberinfrastructure Task Force, 2003-2005
 NSF Advisory Committee subcommittee on Cyberinfrastructure, 2003-2005
 University of Maryland visiting committee, 2003
 Texas State Board of Education Earth Science Task Force, 2002-2005
 USGS EDMAP Review Panel, 1997-1999
 Fulbright Specialist Review Panel, 1995-1998
 Committee of Examiners for the GRE Geology Test, member, 1992-2000; chair, 1998 -2000
 U.S. National Committee on Geology Steering Group, 1997
 NSF Review Panel for Instrumentation and Laboratory Improvement Program, 1995
 University of Kentucky, Department of Geological Sciences, Program Review Committee, 1995
 U.S. National Committee for International Geologic Correlation Program
 Chair, 1990-1993, Vice-Chair, 1987-1990.
 U.S. National Committee on Geology, 1991- 1993, *ex officio* member
 NSF Review Panel for Postdoctoral Research Grants, 1991

PROFESSIONAL SOCIETY ACTIVITIES:

Membership

Geological Society of America (Fellow)
 Geological Society of London (Honorary Lifetime Fellow)
 American Association for the Advancement of Science
 American Geophysical Union
 Council of Scientific Society Presidents
 American Association of Petroleum Geologists
 Division of Structural Geology and Tectonics, Geological Society of America
 Sigma Xi Honor Society 1978 - 2011
 Phi Kappa Phi Honor Society

Offices

American Geosciences Institute, President, 2012-13; President-Elect, 2011-12; Past President, 2013-14
 Council of Scientific Society Presidents, Chair, 2004; Past Chair, 2005; Chair-Elect, 2003; Treasurer, 2002; Board member, 2001; member, 2000-2002, 2011-2014; alumni liaison board member, 2007-2022

Geological Society of America, President, 2000-2001, Past President 2001-2002, Vice President 1999-2000; Councilor, 1992-1995, 1999-2002
 Division of Structural Geology and Tectonics, Geological Society of America, Chairman, 1981-82

Editorships, Professional Society Committees

American Association for the Advancement of Science, Societal Impacts of Science and Engineering Section, Geological Society of America representative, 2017 -2020
 Council of Scientific Society Presidents, Vision Committee Chair, 2020-2022; Strategic Planning Task Force, Chair, 2011; Search Committee Chair for President, 2012 – 2014; Awards Committee 2007-2020; nominating committee member 2007- 2022
 American Geoscience Institute, Strategic Planning Committee, 2011-2012
 American Geoscience Institute, Compensation Committee, Chair/member, 2012-14
 American Geoscience Institute, Awards & Nomination Committee, 2012-2015; Chair/member
 American Geoscience Institute Congressional Science Fellow selection committee, 2013
 GeoScienceWorld, Chair, Board of Directors, 2004-2009; Steering Committee, Chair, 2001-2004; consultant supervisor, 2002-2004; multi-society committee to develop geoscience society electronic journal aggregate, (Geological Society of America, American Association of Petroleum Geologists, Society for Exploration Geophysics, Geological Society of London, American Geological Institute, Mineralogical Society of America and Society of Sedimentary Processes); Capital Campaign Advisory Committee, 2012
 Associate Editor, Geological Society of America Bulletin, 1989-1991
Geological Society of America committees
 125th GSA Anniversary Celebration committee, chair, 2008-2013
 Publication Ethics Committee, Chair, 2012-2015
Lithosphere – chair ad hoc committee to start new structure/tectonics/geodynamics journal, 2008
 Publications Committee, 2004-2009
 Education and Outreach Director Search Committee, chair, 2002
 Finance Committee member 2001-2002
 Education Committee member, 2002
 Executive Committee member, 1999-2002
 Organising Committee member, Earth System Processes meeting, Geological Society of America and Geological Society of London, co-sponsors, Edinburgh, Scotland, June 2001
Ex officio member all 21 GSA committees, 2000-2001
 Foundation President Search committee, 2001
 Executive Director Search committee, 2001
 Annual Program Committee, Chair, 1996-2000; restructured and revitalized GSA Annual Meeting and initiated Field Forums
 Geology and Public Policy Committee, 1999-2000
 Strategic Planning Committee, 1996-1998
 Governance Task Force, 1997
 Nominating Committee, chair, 1996; member, 1988
 Committee on Annual Meeting Programs, chair, 1996
 Field Trip Chairman, 1996 South Central GSA Sectional Meeting, Austin, TX
 Committee to study GSA Committees, chair, 1995-96
 Committee on Young Scientist Award, 1991-1994; chair, 1993
 Committee on Committees, 1991
 Research Grants Committee, member, 1985-1987; chair, 1986-1987
Division of Structural Geology and Tectonics, Geological Society of America
 Nominating Committee, 1982-1983 (Chair), 1986-1987 (member), 1989-90; 2007, 2010-11

Joint Technical Program Committee Representative, Annual Meeting, 1981, 1984, 1986
 Chairman, 1981-82
 Research and Education Committee, 1982-1983
 Program Chairman, 1980-1981

REVIEWER:

Textbooks: Ragan, D. M., Structural Geology, Wiley and Sons; Addison-Wesley Publishing Co.;
 Columbia University Press.
 Moores, E., and Twiss, R., Structural Geology, W. H. Freeman and Co., NY
 Special Paper Monograph: Geological Association of Canada
 Journals: Geophysical Research Letters, Journal of Geophysical Research, Journal of Geology,
 Geological Society of America Bulletin, Geology, American Journal of Science; Journal of
 Structural Geology; Tectonics, AAPG Bulletin, Tectonophysics; EOS; Precambrian Research;
 Journal of Sedimentary Research, GSA Special Papers, Journal of Geodynamics, Australian
 Journal of Earth Science, Lithosphere, Lithos; Geosphere
 Grant Proposals: National Science Foundation; Petroleum Research Fund-American Chemical
 Society; Center for Energy and Mineral Resources; Australian Antarctic Division
 Book Reviews: Journal of Geological Education, Geology, *GSA Today*, *EOS*
 Abstracts: Geological Society of America.

COMMUNITY ACTIVITY PARTICIPATION:

NSF-sponsored Summits on Improving Geoscience Graduate Student Preparedness for the Future,
 Organizing Committee Chair, 2017-2023; 2018 Geoscience Employers Workshop; 2019
 Summit.
 NSF-sponsored Summits on the Future of Geoscience Undergraduate Education, Organizing
 Committee Chair, 2013-2021; 2014 & 2016 Summits, 2015 Geoscience Employers Workshop;
 leader for 2015, 2017, 2019 and 2021 Earth Educators Rendezvous workshops.
 Total Energy and Education Seminar, June 2014, participant
 Geological Society of America and Jackson School of Geosciences Field Excursion, Organizer
 and Host, “*Travels in Geology—Antarctica and the Scotia Arc: Tectonics, Climate and Life*”,
 January, 2013.
 American Geoscience Institute Leadership Forum on Ethics, Chair, 2013
 American Geoscience Institute, Member Society meetings, Chair, Fall 2012; Spring/Fall 2013
 DIG TEXAS (Diversity and Innovation for Geosciences in Texas) Workshop, Co-leader, 2011
 Geological Society of America meeting (Houston, 2008); Fieldtrip leader with Mark Helper and
 Jamie Levine; “The Texas Grenville orogen, Llano Uplift Texas: *Fieldtrip guide to the
 Precambrian Geology of the Llano Uplift, central Texas*”
 Geological Society of America meeting (Houston, 2008); Topical Session organizer with Rick
 Law; “Mid- to Lower Crustal Deformation Processes: Strain, Kinematics and Relationships to
 Upper Crustal Structures”
 17th Australian Geological Congress, Geological Society of Australia, symposium convener with
 John Dewey: “Evolution of the Australian-Pacific plate boundary, with emphasis on the New
 Zealand – Macquarie Ridge section” (Hobart, Tasmania; 2004)
 Earth System Science: the key role of international and national agencies in formulating future
 science strategies, panel member, sponsored by the Natural Environment Research Council &
 the European Science Foundation; Earth System processes meeting, Geological Society of
 America & Geological Society of London co-sponsors (Edinburgh, Scotland; 2001)
 Earth System Processes meeting, Geological Society of America & Geological Society of London
 co-sponsors (Edinburgh, Scotland, 2001); organizing committee member, host, participant

Geological Society of America, (Boston, 2001) Field trip leader with Rachel Burks, Dan Murray, N. Hamidzada, "Avalonian through Alleghanian Tectonism in Southeastern New England"

31st International Geologic Congress, 2000, Rio de Janeiro, invited speaker, participant

DOSECC-sponsored Workshop – the SOAL Project, March 1999, AAPG Annual Meeting, San Antonio, invited overview presentation, participant

New England Intercollegiate Geologic Conference (NEIGC) (Kingston, 1998), Fieldtrip Leader with Rachel Burks and Dan Murray, "The southern Narragansett Basin, RI: Characterizing the Alleghanian Orogeny in southeastern New England"

Gordon Conference on Rock Deformation, 1997, participant

COPENA-ECSOOT-IBTA conference, Goose Bay, Labrador, August, 1996, field trip and conference participant, invited speaker

Geological Society of America South Central Section Meeting, Austin, TX, Spring 1996, Field trip leader: Precambrian Geology of the Eastern Llano Uplift, central Texas.

Geological Society of America South Central Section Meeting, Austin, TX, Spring 1996, co-convenor of symposium entitled "Precambrian Evolution of the Southwestern Laurentian Continent"

Fieldtrip Chairman, Geological Society of America South Central Section Meeting, Austin, TX, Spring 1996

12th International Conference on Basement Tectonics (Norman, OK, 1995) field trip leader, "Precambrian geology of the eastern Llano uplift"

Geological Society of America, (Boston; 1993) Field trip leader with Dan Murray, Don Hermes, Peter Gromet, "Alleghanian and Avalonian tectonism in southeastern New England"

Geological Society of America, South-central Sectional Meeting (Houston, 1992), co-convenor of symposium entitled "Evolution of Grenville Basement"

Geological Society of America Northeastern Sectional Meeting (Providence, RI, 1984; Kiameshi Lake, N.Y., 1986; Portland, Maine, 1988), session chairman

Geological Society of America, South-central Sectional Meeting (Dallas, Texas, 1984), co-convenor of symposium entitled "Quantitative methods in structural geology"

Geological Society of America Northeastern Sectional Meeting (Providence, RI, 1984), co-convenor of symposium entitled "Avalon terranes in the Northern Appalachians: the effect of the Alleghanian orogeny upon the Avalonian geology of southeastern New England"

Geological Society of American South-central Sectional Meeting College Station, Texas, 1983), session chairman

Short course on Ductile Deformation Mechanisms and Microstructures, Fall, 1982, sponsored by Division of Structural Geology and Tectonics, Geological Society of America, led by J. Tullis, M. Etheridge, and S. Schmidt; participant

Geological Society of America Annual Meeting (New Orleans, 1982; Reno, 1984, Orlando, 1985), session chairman

New England Intercollegiate Geologic Conference (NEIGC) (Kingston, RI, 1981), Fieldtrip Leader with Rachel Burks and Dan Murray, "Alleghanian deformation and metamorphism in southern Narragansett Basin of Rhode Island"

New England Intercollegiate Geologic Conference (NEIGC) (Kingston, RI, 1981), Fieldtrip Leader with Ranaye Dreier, "The Blackstone Series: Evidence for an Avalonian plate margin in northern Rhode Island"

Geological Society of America Annual Meeting (Cincinnati, 1981) Program chairman for structure and tectonics sessions, Co-convenor and Coordinator for the 1981 Centennial Symposium: "Frontiers in Structural Geology", session chairman

Penrose Conference on Pressure Solution (New York, 1980), paper presented

International Geologic Correlation Project (IGCP), local fieldtrip leader, (Appalachian trip, Fall, 1979)

International Shear Zone Conference (Barcelona, Spain, 1978), poster session
 Short course on Mylonites - natural and experimental, Spring, 1978, sponsored by Northeastern Section of Geological Society of America, led by J. Tullis and R. Dixon; participant
 New England Intercollegiate Geologic Conference (NEIGC) (Boston, 1976), Fieldtrip Leader with Dennis Wood; “Mechanisms of Alleghenian deformation in the Pennsylvanian of Rhode Island”
 Penrose Conference on Paleozoic Continental Margins (St. John, New Brunswick, 1975), paper presented, session chairman

INVITED LECTURES:

- “Skills and competencies for the future geoscience workforce”: American Geophysical Union Fall meeting 2023.
- “Preparing Geoscience Undergraduate Students for the Future Workforce” Geological Society of America Annual meeting 2022.
- “Vision & Change in the Geosciences: The Future of Undergraduate Geoscience Education”, Earth System Science Workshop on Education and Workforce, National Academies of Sciences, Engineering, and Medicine Committee on Advancing a Systems Approach to Studying the Earth: A Strategy for the National Science Foundation, 2021
- “Undergraduate Geoscience Education”, National Academies of Science, Engineering and Medicine, Roundtable on Systemic Change in Undergraduate STEM Education, 2021
- “Preparing undergraduate geoscience majors for successful careers in a quantitative world”, National Academies’ Committee on Seismology and Geodynamics, 2020
- “Broadening diversity and inclusiveness in a quantitative, computational world”, Computational Infrastructure for Geodynamics, “Advancing Our Understanding of Earth Dynamics in CIG IV”, 2020
- “The Geoscience Workforce”. The Future of Undergraduate Geoscience Education”, National Academies of Sciences, Engineering, and Medicine Committee on Advancing a Systems Approach to Studying the Earth: A Strategy for the National Science Foundation, 2020
- Preparing the Geoscientist Workforce of the Future: Undergraduate & Graduate Geoscience Education”, Interactive Panel – Geoscientist Workforce of the Future: Education and ReTooling, American Association of Petroleum Geologists Annual Meeting, 2020
- “Vision & Change in the Geosciences: The Future of Undergraduate Geoscience Education”, Geological Society of America Annual Meeting, 2020
- “Preparing the Geoscientist Workforce of the Future: Undergraduate & Graduate Geoscience Education”, University of Utah, Earth Science: New Map Forum, 2020; Bureau of Economic Geology, University of Texas at Austin, 2020
- “A view of the landscape for improving geoscience education: Challenges & Opportunities”, Keynote address, SERC/NAGT Geoscience Infrastructure meeting, 2019.
- “Culture Change in Departments for the Future of Geoscience Education”, Pardee Symposium, Geological Society of America Annual meeting, 2019
- “Universal Skills for Geoscience Graduate Student Success in the Workforce”, AGU/AGI Webinar, 2019
- “Increasing and Sustaining Diversity in the Geosciences”, National Academies’ CORES committee on Catalyzing Opportunities for Research in the Earth Sciences, 2019
- “Importance of U.S. marine geophysical research vessels”, NSF meeting on Future of Marine Seismic Capabilities, 2019
- “Role of Universities in 21st Century Global Earth Challenges”, Inaugural Symposium and Masri Building Dedication for Masri Institute, American University of Beirut, Beirut, Lebanon, 2018

- “Preparing Students for the Future Geoscience Workforce”, Keynote address, South Central Geological Society of America meeting, 2017
- “Preparing students for the future geoscience workforce”, NSF, 2017
- “The Changing World of Geoscience: Research, Education & the Workforce”, University of Illinois at Urbana, 2016
- “Universal Skills needed for Graduate Student Success in Diverse Geoscience Professions”, GSA Annual meeting, 2016
- “Outcomes and Next Steps: Geoscience Workforce and the Future of Undergraduate Geoscience Education”, AGU/AGI Webinar, 2016
- “Universal skills and competencies for geoscientists”, American Geophysical Union Fall Meeting, December 2015
- “Preparing geoscience students for successful careers”, Geological Society of America Annual meeting, 2015
- “Geoscience Workforce and the Future of Undergraduate Geoscience Education” AGU/AGI Webinar, 2015
- “NSF-Sponsored Summit on the *Future of Undergraduate Geoscience Education* outcomes”: American Geophysical Union Fall Meeting, 2014
- “Summit on the Future of Undergraduate Geoscience Education”, AGU/AGI Webinar, 2014.
- “From core to atmosphere and planets beyond: Research and Education at the Jackson School of Geosciences, University of Texas at Austin”; Jet Propulsion Laboratory, 2013
- “Building a Diverse & Sustainable Geoscience Workforce”: joint AAPG Division of Professional Affairs (DPA) / Professional Women in Earth Sciences (PROWESS) luncheon, AAPG Annual Meeting, Long Beach, CA, 2012
- “Balancing Research and Education in a Research University Environment”, invited speaker for special session: *The Interaction Between Academia and Industry*, Society of Exploration Geophysicists, Denver, 2010
- “Deformation from the Bottom up – a Case for Biaxial Extension”, Geological Society of America Annual meeting, Houston, 2008
- “Future of Information Behaviors”, Keynote address, Geoscience Information Society, Geological Society of America Annual meeting, Houston, 2008
- “Collisional Model for a Grenville-aged orogenic belt: Llano Uplift, central Texas, in Symposium on *Proterozoic Growth and Evolution of Southern Laurentia*, South Central section of the Geological Society of America, 2005
- “Future of Science and Role of Natural History Museums”, Keynote speaker, panel member, Denver Museum of Nature and Science, 2005
- “*E Pluribus Unum*”, Council of Scientific Society Presidents meeting, December, 2004
- “Leading in Difficult Times”, Council of Scientific Society Presidents meeting, May, 2004
- “Associations at the Crossroads”, Council of Scientific Society Presidents meeting, November, 2003
- “GeoScienceWorld: a multi-society aggregation of geoscience electronic journals”, Geological Society of America Annual meeting, Topical Session: *Geoscience Information Horizons: Challenges, Choices and Decisions*, 2003
- “Growing Membership through Change”, Council of Scientific Society Presidents meeting, May, 2002
- “Tectonic evolution of the western Llano Uplift, central Texas: a record of Grenville orogenesis along the southern Laurentian margin”, in symposium on *New Perspectives on the Grenville Orogeny in the United States and Canada: in Honor of Jim McLelland*, Northeastern section of the Geological Society of America, Spring 2002

- “Grenville orogenesis along the southern Laurentian margin: contrasts between the eastern and western Llano Uplift, central Texas” in symposium on *Precambrian Geology of Southern Laurentia*, South-central section of the Geological Society of America, Spring 2002
- “Tectonic evolution of the eastern Llano uplift, central Texas: a record of Grenville orogenesis along the southern Laurentian margin”, in a Topical Session on *New Topics in Grenville Tectonics: a new look at some old rocks*, Geological Society of America Annual meeting, Fall, 2001
- “Plate Boundaries to Politics: Pursuing Passions in Science”, Geological Society of America Presidential Address, 2001
- “Strain accommodation along the Macquarie ridge complex: transition from transtension to transpression along an active plate boundary”, in *Fault zone evolution and convergent tectonics: a symposium in honor of Rolfe Stanley*, Geological Society of America, Northeastern Section meeting, Spring, 2001
- “GSA/AAPG’s Grand Challenge for the 21st Century: a friendly merger?” Keynote address, Cordilleran section of the Geological Society of America and the Pacific section of the American Association of Petroleum Geologists, Spring, 2001
- “The extension of the Precambrian mid-continent Granite-Rhyolite terrane into Texas”, in symposium titled: *Probing the Precambrian in the Midwest: Reconciling Geological, Geochemical and Geophysical Observations*, North-central section of the Geological Society of America, Spring 2001
- “Mesoproterozoic tectonic evolution of Texas prior to the Grenville orogeny”, in symposium on *Mesoproterozoic tectonics of the southwestern United States*, South-central and Rocky Mountain section of the Geological Society of America, Spring 2001
- “Macquarie Ridge Complex: evolution of the Australian-Pacific plate boundary from a divergent to transform margin”, University of Illinois at Urbana, Spring 2001; University of Missouri at Columbia, Fall 2000
- “Mesoproterozoic accretion along the Laurentian margin, Llano Uplift, central Texas”, 31st International Geologic Congress, Rio de Janeiro, invited keynote speaker in special symposia, *Accretion Tectonics of North America*, August, 2000.
- “Tectonic evolution of the southern Laurentian margin”, Northern Arizona University, Fall 2000
- “The view from Llano”, DOSECC-Sponsored Workshop, March 1999, AAPG Annual Meeting, San Antonio, invited overview presentation.
- “The Texas Grenville Orogen”, Keynote address for symposium on *Proterozoic and early Paleozoic magmatism*, South Central Section Meeting, Lubbock, TX, 1999.
- “Grenville orogenesis along the southern margin of Laurentia, Llano Uplift, central Texas”:
 University of Kansas, Fall 1997
 COPENA-ECSOOT-IBTA conference, Goose Bay, Labrador, August, 1996
 University of Illinois at Urbana, Fall, 1996
 University of Texas at Dallas, Fall, 1996
 University of Texas at Austin, Fall 1996
- "Evolution of Grenville Tectonic Provinces, Southeastern Llano Uplift, Central Texas", 12th International Conference on Basement Tectonics '95, Norman OK, International Basement Tectonics Association, May 1995
- "Evolution of Texas Basement" University of Oklahoma, Fall 1994
- "Tectonic evolution of Grenville-age crust, Llano Uplift, central Texas", Texas Tech, Fall 1994
- "Structural evolution of the Tuscan Nappe, Northern Apennines, Italy and the effect of fluids on deformation mechanisms", Institute for Geophysics, University of Texas at Austin, 1993
- "The Texas Grenville orogenic belt" in symposium on *Early, Middle and Late Proterozoic Tectonic Evolution of Southwestern North America*, Rocky Mountain/Southcentral GSA meeting, 1991

- "The Texas Grenville Orogeny", University of Texas at San Antonio, Spring 1990
- "Proterozoic evolution of the Llano Uplift, Central Texas" in symposium on *Structure, Tectonics and Geophysics of the Southern Margin of North America*, GSA Annual meeting, Dallas, 1990.
- "The southern collisional margin of the Precambrian North American Craton: the Texas Grenville orogenic belt", in symposium on *Southern Mid-continent-Texas Craton Transects*, Southcentral GSA, 1990
- "The diachronous effects of the Alleghanian orogeny in southeastern New England", in symposium on *Along Strike Variations in the Nature of the Alleghanian Orogeny*. NE GSA meeting, Spring, 1990
- "Structural evolution of the Tuscan nappe, Northern Apennines, Italy":
 Rice University, Fall, 1990
 Texas A&M University, Fall, 1987
 Southern Methodist University, Fall, 1987
 Institute of Geophysics, Fall, 1987
- "The Grenville (Llano) Orogeny-Texas style", in symposium on *Stratigraphic and structural analyses of mountain belts*, Northeastern GSA regional meeting, Spring, 1988.
- "Late-stage Alleghanian wrenching of the western Narragansett Basin, RI", symposium on *Bedrock geology of Coastal New England and New Brunswick east of the Kearsarge-Central Maine synclinorium*, Spring, 1988
- "Paleoenvironmental and tectonic controls on coal forming basins in southeastern New England", in symposium on *Paleoenvironmental and tectonic controls on coal forming basins in the U.S.A.*, GSA Annual Meeting, Reno, Fall, 1984
- "Permian deformation and metamorphism in southeastern New England", in symposium on *Avalon terranes in the Northern Appalachians: the effect of the Alleghanian orogeny upon the Avalonian geology of southeastern New England*, Northeastern GSA regional meeting, Providence, RI, 1984
- "Kinematic history of the Narragansett Basin, Massachusetts and Rhode Island: Constraints on Late Paleozoic plate reconstructions", UCLA, 1987; Univ. of Oklahoma, Fall, 1983
- "Alleghanian deformation in southeastern England":
 Exxon Production Research, 1985
 Univ. of Southern California, 1984
 Institute of Geophysics, UT Austin, 1983
 UT El Paso, Fall, 1981
- "Shear zones: a review of current studies", GSA Centennial Symposium on *Frontiers in Structural Geology*, Fall, 1981
- "Pressure solution as a deformation mechanism for conglomerates from Rhode Island":
 Southern Methodist University, Fall, 1981
 Boston University, Fall, 1981
 Penrose Conference on Pressure Solution, New Paltz, New York, Spring, 1980
 University of Oregon, Fall, 1979
 University of Texas at Dallas, Fall, 1979
 University of Houston, Spring, 1978
 University of Texas at Austin, Spring, 1978
 University of Illinois at Urbana, Spring, 1978
 Indiana University, Spring, 1977
- "Pressure solution and conglomerate deformation in Rhode Island", GSA Northeastern regional meeting, Boston, Spring, 1978.
- "Alleghanian deformation mechanisms in southwestern New England", Conference on Paleozoic Continental Margins, St. John, New Brunswick, Spring, 1975.

RESEARCH GRANTS:

- NSF Grant # ICER-1740844, Collaborative Research: Universal skills for geoscience graduate student success in the workforce; Mosher PI; co-PI Jeff Ryan, University of South Florida (\$231,209); 8/15/17 – 1/31/23.
- NSF Grant: ICER# 1748780 Vision and Change for Geoscience Undergraduate Education: Report and Toolkit; Mosher, co-PI; PI Chris Keane, American Geoscience Institute (\$155,403); 9/1/18-8/31/2021.
- NSF Grant # EAR-1725289, Heads and Chairs Workshop on Future of Undergraduate Geoscience Education (\$61,470), 6/1/17-5/31/19.
- NSF Grant #EAR-1347209, Future of Geoscience Undergraduate Education, summit proposal (\$235,023), 9/1/13-2/28/16.
- NSF Planning Grant: DIG Texas- A Workshop on Diversity and Innovation in Geosciences in Texas, Co-PI with Kate Miller, Dean College of Geosciences, Texas A&M, 5/10-7-12 (\$39,997)
- Jackson School of Geosciences SEED grant, 2006, \$19,621, Electron Backscatter Diffraction Start-up and Development; with K. M. Milliken and R. M. Reed
- Australian Antarctic Division (ANARE) Project # 2515, The environmental and tectonic implications of volcanoclastic sedimentary deposits on Macquarie Island, 2004-2007, with Nathan Daczko, Macquarie University, (\$600,000 in logistical support – as reported by ANARE)
- University of Texas College of Natural Science Research Award, Radiometric Dating of Oceanic Crust and Upper Mantle from a Dying spreading Ridge along the Australian-Pacific Plate Boundary, 2002-2003 (\$6000)
- Australian Antarctic Division(ANARE) Project # 116, Structural evolution of Macquarie Island: interpretation of marine geophysical data and structural mapping, Year 2 (\$550,000 in logistical support– as reported by ANARE), 2001-2002
- Conoco Research grants, Macquarie Island project student support: 2000 (\$2500), 2001 (\$2500), 2002 (\$1500)
- Australian Antarctic Division (ANARE) Project # 116, Structural evolution of Macquarie Island: interpretation of marine geophysical data and structural mapping (\$134,000 in logistical support– as reported by ANARE), 1999-2000
- NSF Grant #EAR-9706692, Mesoproterozoic tectonic evolution of the southern margin of Laurentia, 1997-1999 (\$153,824), lead PI; with J. Connelly, W. Carlson
- NSF Grant #EAR-9219484, Continued investigation of the formation and evolution of Grenville-aged crust in central Texas, 1993-1995 (\$119,203), lead PI; with W. Carlson, N. Walker
- NSF Grant #EAR-8804717, A geochronologic, structural, and petrologic investigation of Proterozoic tectonism and metamorphism in the Llano Uplift, Texas, 1988-1991 (\$84,436), with N. Walker and W. Carlson
- NSF Grant #EAR 8721302, Investigation of crustal contraction mechanisms in the brittle/ductile transition zone, 1988-1991 (\$73,869)
- URI Research Leave, University of Texas: "Kinematic history of the western Narragansett Basin", Spring 1988
- URI Special Research Grant, University of Texas: "Kinematic analysis of the western Paleozoic and Triassic belt and western Jurassic belt boundary, Klamath Mountains, California", 1983 (\$500)
- NSF Grant #EAR-8121294, "Alleghanian deformation in southeastern New England", 1982-1984 (\$66,000)
- URI Summer Research Award, University of Texas, "The structure and tectonics of the Narragansett Basin", 1981 (\$4,000)

- Petroleum Research Grant, American Chemical Society: The Narragansett Basin of Rhode Island: structure, stratigraphy, and sedimentary environments", 1980-1982 (\$10,000)
- URI Special Research Grant, University of Texas: "Natural strain and deformation in the Narragansett Basin of Rhode Island", 1980 (\$350)
- Sigma Xi Grant in Aid of Research, 1976 (\$100)
- GSA Penrose Request Research Grant, 1975 (\$500), 1976 (\$800)
Titles: "Pressure solution as a deformation mechanism for conglomerates from the Narragansett Basin, Rhode Island"

PUBLICATIONS

Articles in refereed journals and books:

Citations: GS – Google Scholar

- Mosher, S., and Gillis, G, 2025, Tectonic history of the Mesoproterozoic Coal Creek serpentinite, Llano Uplift, central Texas, USA: Geological Society of America Bulletin, v.137, n. 5-6, p. 2473–2488. <https://doi.org/10.1130/B37801.1>. 1 GS citation
- Mosher, S., Ryan, J., and Keane, C., 2023, Vision and Change in the Geosciences: Shaping the Future of Graduate Geoscience Education, American Geoscience Institute. 107p.
- Southern, S.C., Mosher, S., Orlandini, O.F., 2022, Strain Partitioning in the Moine Nappe, Northernmost Scotland: Geosphere; <https://doi.org/10.1130/GES02522.1>. 4 GS citations
- Betka, P., Mosher, S., and Klepeis, K., 2022, Progressive development of a distributed ductile shear zone beneath the Patagonian retroarc fold-thrust belt, Chile: Lithosphere, 2022 (1): 3820115. 5 GS citations
- Mosher, S., Harrison, W., Huntoon, J., Keane, C., McConnell, D., Miller, K., Ryan, J., Summa, L., Villalobos, J. White, L., 2021, Vision and Change in the Geosciences: The Future of Undergraduate Geoscience Education: Eds. Mosher, S., Keane, C., American Geoscience Institute, 176p., 54 GS citations.
- Summa, L. Keane, C. and Mosher, S., 2017, Meeting changing workforce needs in geoscience with new thinking about undergraduate education: Groundwork: GSAToday, v. 27, pp. 60–61; doi: 10.1130/GSATG342GW.1., 15 GS citation.
- Levine, J.S.F., Mosher, S., and Rahl, J. M., 2016, The role of subgrain boundaries in partial melting: Journal of Structural Geology, v. 89, p. 181-196; doi:10.1016/j.jsg.2016.06.006. 12 GS citations.
- Betka, P., Klepeis, K., Mosher, S., 2016, Fault kinematics of the Magallanes-Fagnano fault system, southern Chile: an example of diffuse strain and sinistral transtention along a continental transform margin: Journal of Structural Geology, v. 85, p. 130-153; doi: 10.1016/j.jsg.2016.02.001., 32 GS citations.
- Davis, B., and Mosher, S, 2015, Complex structure and fluid flow evolution along the Grenville Front, west Texas: Geosphere, v. 11 no. 3 p. 868-898; doi:10.1130/GES01098.1, 28 GS citations.
- Betka, P., Klepeis, K., Mosher, S., 2015, Along-strike variation in crustal shortening and kinematic evolution of the base of a retroarc fold-thrust belt: Magallanes, Chile 53°-54° S, Geological Society of America Bulletin, Vol. 127, No. 7-8, 2015, p. 1108-1134; doi:10.1130/B31130.1., 29 GS citations.
- Carter, M. J.; Mosher, S., 2013, Alleghanian deformation of Cambrian metasedimentary rocks on Avalonia in south-central Rhode Island, USA. Atlantic Geology, [S.l.], p. 70 - 89, doi:10.4138/atlgeol.2013.003. 3 GS citations.
- Levine, J.S.F., Mosher, S., and Siddoway, C.S., 2013, Relationship between syndeformational partial melting and crustal-scale magmatism and tectonism across the Wet Mountains, central

- Colorado: *Lithosphere*, v. 5, n. 5, p. 456-476. doi: 10.1130/L287.1. [Editor's choice for a Research Focus article in 12/2013 issue.], *26 GS citations*.
- Singleton, J. S., and Mosher, S. 2012, Mylonitization in the lower plate of the Buckskin-Rawhide detachment fault, west-central Arizona: Implications for the geometric evolution of metamorphic core complexes: *Journal of Structural Geology*, v. 39, p. 180-198. [Received Best Student Publication in *Journal of Structural Geology* in 2012., *66 GS citations*.
- Levine, J.S.F., and Mosher, S., 2010, Contrasting Grenville-aged tectonic histories across the Llano Uplift, Texas: New evidence for deep-seated high-temperature deformation in the western uplift: *Lithosphere*, v. 2, p. 399 - 410., *17 GS citations*.
- Mosher, S., and Massell-Symons, 2008, Ridge reorientation mechanisms: Macquarie Ridge Complex, Australia-Pacific plate boundary: *Geology*, v. 36, p. 119-122., *22 GS citations*.
- Mosher, S, Levine, J.S.F., and Carlson, W. D., 2008, Mesoproterozoic plate tectonics: a collisional model for the Grenville-aged orogenic belt in the Llano Uplift, central Texas: *Geology*, v. 36, p. 55-58. *112 GS citations*.
- Ge, H, Jackson, M. P. A., and Mosher, S., 2008, Cenozoic extensional rejuvenation of salt structures in the Paradox Basin, Utah and Colorado, USA: *Geological Journal of China Universities*, v. 14, no. 1, p. 49-63.
- Carlson, W. D., Anderson, S. D., Mosher, S., Davidow, J. S., Crawford, W. D., and Lane, E. D., 2007, High-pressure metamorphism in the Texas Grenville Orogen: Mesoproterozoic subduction of the southern Laurentian continental margin: *International Geology Review*, v. 49, p. 99-110. Re-published 2008 in: *Metamorphic Conditions along Convergent Plate Junctions: Mineralogy, Petrology, Geochemistry and Tectonics*, Ernst W G and Rumble III D, eds., Bellwether Publishing Ltd., p. 719-739. *340 GS citations*.
- Meckel, T. A.; Mann, P.; Mosher, Sharon; Coffin, Millard F., 2005, Influence of cumulative convergence on lithospheric thrust fault development and topography along the Australian-Pacific plate boundary south of New Zealand: *Geochemistry, Geophysics, Geosystems*, V. 6, Q09010, doi:10.1029/2005GC000914 (20 pages), *31 GS citations*.
- Daczko, N.R., Mosher, S., Coffin, M.F., and Meckel, T. A., 2005, Tectonic implications of fault-scarp-derived volcanoclastic deposits on Macquarie Island; sedimentation at a fossil ridge-transform intersection? *Geological Society of America Bulletin*, v. 117, p. 18-31., *12 GS citations*.
- Mosher, S., Hoh, A. M., Zumbro, J.A., Reese, J. F., 2004, Tectonic evolution of the eastern Llano Uplift, central Texas: A record of Grenville orogenesis along the southern Laurentian margin: in Tollo, R.P., Corriveau, L., McLelland, J., and Bartholomew, M. J., eds., *Proterozoic Tectonic Evolution of the Grenville Orogen in North America: Geological Society of America Memoir 197*, p. 783-798. *30 GS citations*.
- Reese, J. S., and Mosher, S., 2004, Kinematic constraints on Rodinia reconstructions from the core of the Texas Grenville Orogen, *Journal of Geology*, v. 112, p. 185-205. *17 GS citations*.
- Meckel, T. A., Coffin, M. F., Mosher, S., Mann, P., Symonds, P., Bernardel, G., 2003, Underthrusting at the Hjort Trench, Australia-Pacific Plate Boundary: Incipient Subduction?, *Geochemistry, Geophysics, Geosystems*, v. 4, No. 12 1099, DOI 10.1029/2002GC000498 (30 pages). *59 GS citations*.
- Daczko, N. R., Wertz, K. L., Mosher, S., Coffin, M. F., 2003, Extension along the Australian-Pacific transpressional transform plate boundary near Macquarie Island: *Geochemistry, Geophysics, Geosystems*, v. 4, n. 9; doi: 10.1029/2003GC000523 (22 pages). *27 GS citations*
- Wertz, K., Mosher, S., Daczko, N., and Coffin, M. F., 2003, Macquarie Island's Finch-Langdon fault:

- a ridge-transform inside corner structure, *Geology*, v. 31, p. 661-664. *22 GS citations*.
- Grimes, S. W., and Mosher, S., 2003, Structure of the Carrizo Mountain Group, southeastern Carrizo Mountains, west Texas: a transpressional zone of the Grenville orogeny: *Tectonics*, v. 22, 1003, DOI: 10, 1029/2001TC001316. (20 pages). *17 GS citations*.
- Boettcher, S. S., Mosher, S., and Tosdal, R. M., 2002, Structural and tectonic evolution of Mesozoic basement-involved fold nappes and thrust faults in the Dome Rock Mountains, Arizona: in Barth, A., ed., *Contributions to Crustal Evolution of the Southwestern United States: Boulder, Colorado, Geological Society of America Special Paper 365*, p. 73-87. *28 GS citations*.
- Mosher, S., 2002, Plate boundaries to politics: pursuing passions in science: *GSA Today*, v. 12, no. 2, p. 4-10. *4 GS citations*
- Dalziel, I. W., Mosher, S., and Gahagan, L. M., 2000, Laurentia-Kalahari collision and the assembly of Rodinia; *Journal Geology*., v. 108, 9. 499-513. *352 GS citations*
- Massell, C., Coffin, M.F., Mann, P., Mosher, S., Frohlich, C., Schuur, C.L., Karner, G., Ramsay, D., and Lebrun, J.-F., 2000, Neotectonics of the Macquarie Ridge Complex, Pacific-Australia plate boundary: *Journal of Geophysical Research*, v. 105, n. B6, p. 13,457-13,480. *92 GS citations*
- Reese, J. S., Mosher, S., and Connelly, J., and Roback, R., 2000, Mesoproterozoic chronostratigraphy of the southeastern Llano Uplift, central Texas: *Geological Society of America Bulletin*, v. 112, n. 2, p. 278-291. *53 GS citations*
- Mosher, S., 1998, Tectonic evolution of the southern Laurentian Grenville orogenic belt: *Geological Society of America Bulletin*, v. 110, no. 11, p. 1357-1375. *295 GS citations*
- Boettcher, S. S., and Mosher, S., 1998, Mid- to Late Cretaceous ductile deformation and thermal evolution of the crust in the northern Dome Rock Mountains, Arizona: *Journal of Structural Geology*, v. 20, n. 6. p. 745-764. *15 GS citations*.
- Nelis, M. K., and Mosher, S., 1998, Brittle deformation of a granite: in Snoke, A. W., Tullis, J. A., and Todd, V. A., eds., *Fault-Related Rocks*, Princeton University Press, p. 22-27. *2 GS citations*.
- Pollman, K. S., and Mosher, S., 1998, Brittle-ductile deformation of feldspar: in Snoke, A. W., Tullis, J. A., and Todd, V. A., eds., *Fault-Related Rocks*, Princeton University Press, p. 172-175.
- Burks, R., and Mosher, S., 1996, Multiple crenulation cleavages as kinematic and incremental strain indicators: *Journal Structural Geology*, v. 18, n. 5, p. 625-642. *13 GS citations*.
- Johns, M. K., and Mosher, S., 1996, Physical models of regional fold superposition: The role of competence contrast: *Journal Structural Geology*, v. 18, n. 4, p. 475-492. *39 GS citations*.
- Mahler Cogswell, J. P., and Mosher, S., 1994, Late-stage Alleghanian wrenching of the southwestern Narragansett Basin, Rhode Island: *American Journal Science*, v. 294, p. 861-901. *13 GS citations*.
- Mosher, S., 1993, Western extensions of Grenville age rocks; Texas: in Reed, J. C., Jr., Bickford, M.E., Houston, R. S., Link, P.K. Rankin, D.W., Sims, P.K., and Van Schmus, W.R., eds., *Precambrian: Conterminous U.S. : Boulder, Colorado, Geological Society of America, The Geology of North America*, v. C-2, p. 365-378. Article 42 *GS citations*; Chapter 80 *GS citations*; Book: *112 GS citations*.
- Mosher, S., and Berryhill, A. W., 1991, Structural analysis of progressive deformation within complex transcurrent shear zone systems: southern Narragansett Basin, Rhode Island: *Journal*

- Structural Geology, v. 13, p. 557-578. *20 GS citations.*
- Folk, R. L., Pursell, V. J., Greenburg, J., Mosher, S., Helper, M. A., Carter, K. E., 1989, Inverted tectonic veins in the Triassic Portoro Limestone, Portovenere area (La Spezia), Italy: *Annales Tectonicae*, v. 3, no. 1, p. 25-33. *5 GS citations.*
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